

**Work Order ID 70904**

Friday, June 17, 2011 7:37:28 AM



Page 1

Item ID: D3017-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Back Frame Assembly

Start Date: 6/16/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

11-06-17

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3017

Rev B

100



Large Fab

Large Fab

Weld per dwg A/R 4130 rod Batch: M 118875 0.00

Large Fab

Memo

0.00

1-Cut D3017-1, D3017-3 and D3017-5 tubes as per Dwg D3017

2-Bend D3017-1 and D3017-3 tube as per dwg D3017 (DT8598)

3-Drill holes in D3017-5 Using DT8622

4-Deburr

5-Assemble and weld as per Dwg D3017 using Welding Jig DT8598

6-Drill holes in back frame using DT8621

11-11-17

110



QC

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds 0.00

Memo

0.00

1 0 BE 11-11-17

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

5 June 17

Quality Control

130

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

2:30  
3200F  
3:00

IXM-6/11/17

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 BL 11-11-17

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
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**Part No:** \_\_\_\_\_ **PAR #:** \_\_\_\_\_ **Fault Category:** \_\_\_\_\_ **NCR:** Yes No **DQA:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Resolution:** \_\_\_\_\_ **Disposition:** \_\_\_\_\_ **QA: N/C Closed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Work Order ID 70904**

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Page 3

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Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

Identify as per dwg & Stock Location: *G-A*

0.00



Packaging

Memo

*70586*

0.00

Packaging

*6/11/11*

160

QC21 - Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*11/11/21**11-11-18*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Friday, June 17, 2011 7:37:35 AM

Page 1

Work Order ID: 70904

Parent Item: D3017-041

Parent Item Name: Back Frame Assembly





Start Date: 6/16/2011

Required Date: 6/23/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP A01.09.19 New issue EC  
IPP RevB: as per revB DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NT0.750W.083  4130 RD Tube .750 x.083W		Purchased	No			100	f	56.0170	2.458	2.587368			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT033		56.017							
				117579		32.1							
				117973		23.917							
M4130NT0.750W.049  4130 RD Tube .750 x.049W		Purchased	No			100	f	52.0000	11.125	11.71053			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT033		52							
				117973		52							
D3017-11  cap		Manufactured	No			100	Each	15.0000	2				
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		15							
				69074		15							
D3017-7  Lug		Manufactured	No			100	Each	2.0000	3	3			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		1							
				69166		1							
				WA019		1							
				52915		1							

70871 x3

out of stock

~~11-11-14~~ / Ac 11-11-14

258

~~11-11-14~~ / Ac 11-11-14

11-71  
2

11-11-17

11-11-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

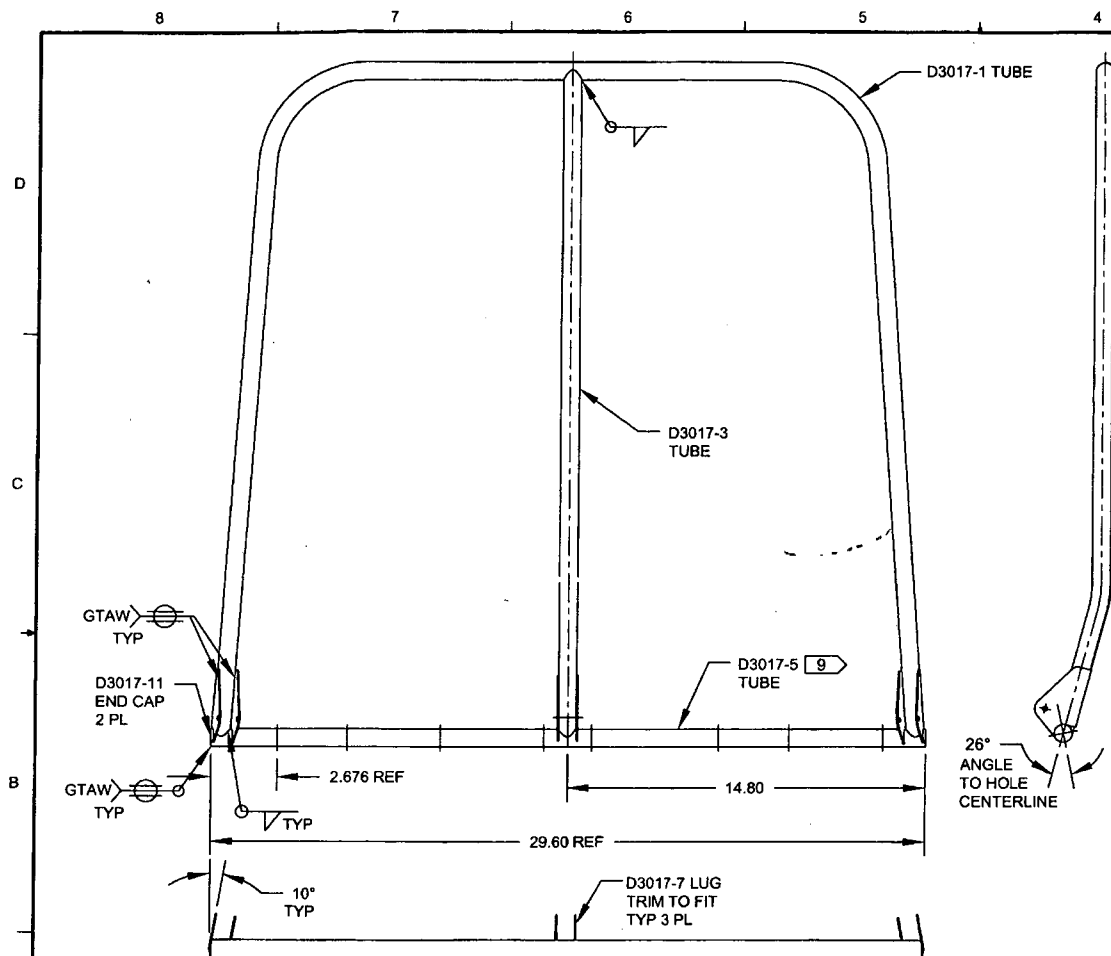
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





ITEM No.	QTY	PART NUMBER	DESCRIPTION
1	X	D3017-041	BACK FRAME ASSEMBLY
2	1	D3017-1	TUBE
3	1	D3017-3	TUBE
4	1	D3017-5	TUBE
5	3	D3017-7	LUG
6	2	D3017-11	END CAP

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 70807  
11-06-17

**RELEASED**  
2010-02-02  
*wp*

**D3017-041 BACK FRAME ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3017-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 4.50 lbs
- 8) WELD PER DART QSI 004
- 9) ROTATE SO THAT PILOT HOLES ARE ANGLED AS SHOWN IN END VIEW.

B	REFORMAT DWG, -5 TUBE WALL THKNS REVD (A8-3) SHEET 3 & 4 ADDED TO CLARIFY DRAWING. RADIUS CHANGED FROM R4.00 TO R3.75 (B4-2, B2-2). HOLE SIZE CHANGED FROM 0.191 TO 0.257 (C6-3, C3-3)	JPH	10.01.13
A	NEW ISSUE	CP	01.05.18
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.13		
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3017 TITLE BACK FRAME ASSEMBLY REV. B SHEET 1 OF 4 SCALE NTS COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

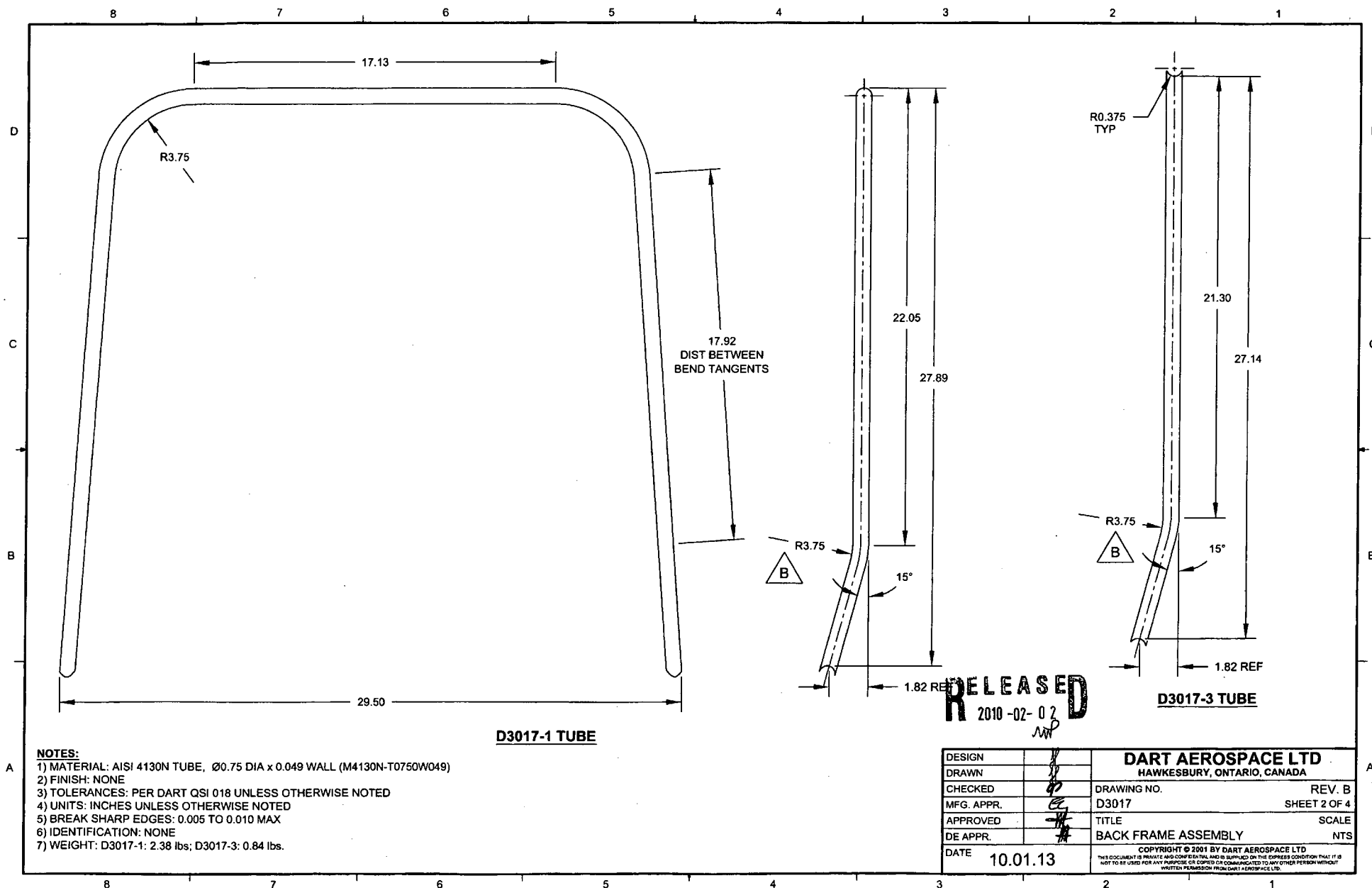
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

WLO 76904



**NOTES:**

- 1) MATERIAL: AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3017-1: 2.38 lbs; D3017-3: 0.84 lbs.

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3017	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BACK FRAME ASSEMBLY	NTS
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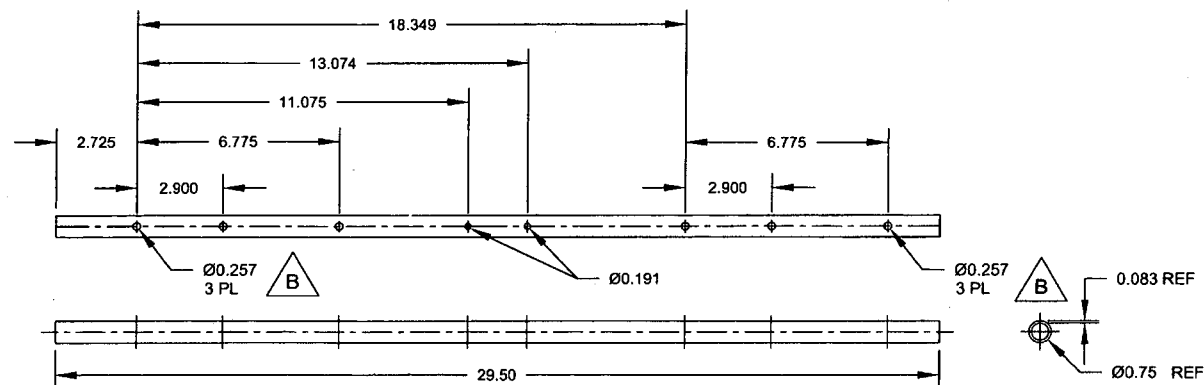
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

ULO 80964



D3017-5 TUBE

**RELEASED**  
2010-02-02  
MP

- NOTES:**
- 1) MATERIAL: AISI 4130N TUBE, Ø0.75 DIA x 0.083 WALL (M4130N-T0750W083)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.89 lbs



DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3017	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BACK FRAME ASSEMBLY	NTS
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

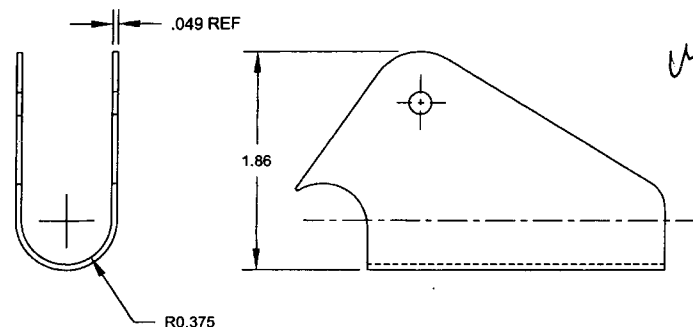
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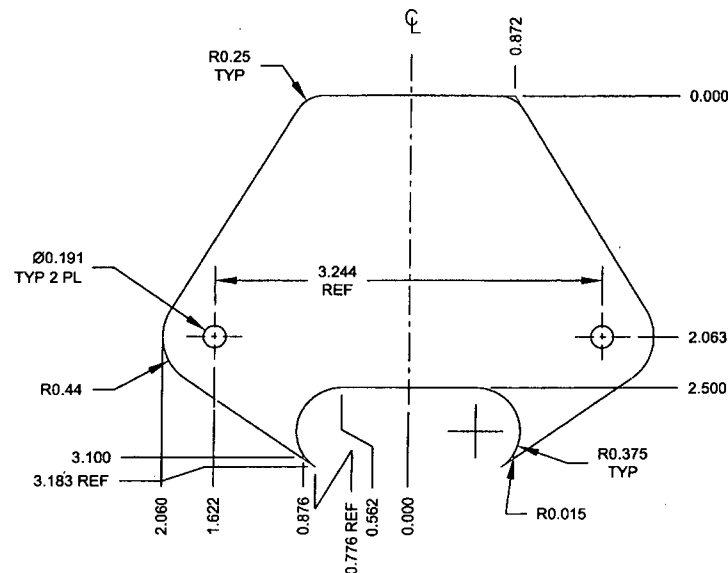
**NOTE:** Date & initial all entries

8 7 6 5 4 3 2 1

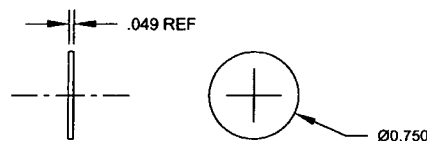
*w/070904*



**D3017-7 LUG**  
BENDING DETAIL  
MAKE FROM D3017-7F



**D3017-7F FLAT PATTERN**  
PART IS SYMMETRIC  
ABOUT CENTERLINE



**D3017-11 END CAP**

**RELEASED**  
2010-02-02

**NOTES:**

- 1) MATERIAL: AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: -7: 0.12 lbs; -11: 0.01 lbs.

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3017	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BACK FRAME ASSEMBLY	NTS
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8 7 6 5 4 3 2 1

**Dart Aerospace Ltd**

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